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ABSTRACT

The National Institute of Education (NIE) should consider the following observations when implementing curriculum development projects: (1) NIE should support curriculum development in the areas of national need, but more effort should be directed to improving existing instructional materials; (2) NIE-supported materials have not been widely accepted because projects have lacked broad national visibility and continued support through dissemination; (3) ways must be found to make early involvement of publishers economically feasible; (4) curriculum development should be centralized but planned to allow for local adaptation; (5) NIE should undertake extensive market research before launching new projects; (6) continuity in selection, monitoring, and evaluation of development efforts is desirable; (7) evaluation should be broadly based and related to the purposes of each project; and (8) continued support for research is essential. (DS)

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Ten Ways to Improve NIE Development Efforts

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A paper prepared for the
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TEN WAYS TO IMPROVE NIE DEVELOPMENT EFFORTS

ABSTRACT

Ten observations based on experiences with USOE/NIE projects are presented for consideration:

1. NIE should support curriculum development in the areas of national need but more effort should be directed to improving existing materials.

2. More can be done to improve the quality of education through improving instructional materials than in any other way.

3. USOE/NIE-supported materials have not been widely accepted because projects have lacked broad national visibility and continued support through dissemination.

4. Careful consideration must be given to developing a national concensus before launching major curriculum reform projects.

5. Ways must be found to make early involvement of publishers economically feasible.

6. Curriculum development should be centralized but planned to allow for local adaptation.

7. NIE should undertake extensive "market research" before launching new projects.

8. Continuity in selection, monitoring, and evaluation of development efforts is desirable.

9. Evaluation should be broadly based and related to the purposes of each project.

10. Continued support for research is essential.

TEN WAYS TO IMPROVE NIE DEVELOPMENT EFFORTS

Research, dissemination, and curriculum development are critical and in some ways inter-locking activities which are basic to NIE's mission. The resources invested in each may vary from time to time but all require support. Because the ten observations that follow in this paper deal primarily with development does not imply a lack of sensitivity to the significance of research and dissemination activity.

1. The National Institute of Education should support curriculum development in areas of critical national need where it can be demonstrated that existing programs -- those available commercially or those developed by SEA's or LEA's -- are unable to satisfy present needs. For certain kinds of "thin market" materials, continuing NIE support will be mandatory for both development and dissemination. For mass market materials, NIE's role may be to demonstrate how existing materials may be improved. For example, by developing exemplary materials for using audio-lingual approaches in teaching foreign languages, the USOE-sponsored foreign language program of the Fifties provided a model for all developers to emulate. Similarly, the School Mathematics Study Group worked sufficiently closely with schools and practitioners, including publishers, that new approaches to mathematics education and instructional materials

incorporating these approaches were substantially changed without requiring extensive Federal support for materials developed.

More effort should be expended in providing services, guidelines, and support for existing developers to encourage improvement in the quality of existing materials. NIE should not automatically assume that launching major curriculum development projects offers the only, or even the preferred way of achieving national goals.

2. More can be done to improve the quality of education through the development of improved instructional materials than in any other way if these instructional materials are widely accepted and used. No doubt a greater payoff results from the improvement of teachers than of products. But given the difficulty of reaching large numbers of teachers, product improvement is far more realistic. Teacher education activities, even dissemination activities, may reach hundreds of teachers, supervisors, or administrators, but fail to provide them with the tools for implementing ideas in the classroom. New instructional materials, if accepted by teachers, will reach thousands of classrooms and be used for at least six or seven years, influencing the education of at least a half generation of American young people. Moreover, when new instructional approaches are built into materials, teachers can learn

the approaches as they teach. And installation procedures accompanying round new products provide a medium for teacher education related to specific classroom concerns.

The significance of instructional materials in affecting the quality of education is attested to by Komoski who, in his May 1976 survey reported that 95 per cent of all instructional hours are structured by the materials (60 per cent by printed materials; 35 per cent by media materials), a finding which, if it seems unexpectedly high, at least points to the cruciality of instructional material.[1] It should be emphasized, especially for the elementary school teacher, that the teacher's edition or teacher's manual which provides detailed, sometimes step-by-step directions, on how the instructional materials are to be used must be considered an integral part of the instructional plan. In addition, most complete programs require an installation system, a teacher training system, an evaluation system that often provides "feedback" information for teachers, administrators, and parents.

Given the above conditions, NIE must necessarily concern itself with the nature of the instructional materials being used in American education and with the general failure thus far of most NIE-supported materials to reach substantial numbers of teachers.

Items:

(a) The funds expended for instructional materials by the nation's school districts has declined from 2 to 3 per cent of all school expenditures in 1960 to 0.7 per cent of all expenditures in 1975. One result is that millions of children are using outdated materials developed or published more than a decade ago. Another is that today's teachers often lack the tools to do an effective job. In its mandate to improve the quality of education, what is NIE's responsibility for evaluating the impact of the quantity and relevancy of the material used in classrooms today?

(b) NIE's recent report on royalties indicates that few USOE/NIE curriculum projects have been widely accepted by users. The record stands in marked contrast with curricula developed by the National Science Foundation which have been widely accepted in both elementary schools and secondary schools. In at least two instances projects initially supported by USOE and then terminated (presumably because of concern for quality) have subsequently been supported by other sources (one NSF, the other, local districts) and later were widely accepted upon publication. The fact that the appropriateness of some of these programs is now questioned should not divert attention from

the fact that NSF, working with the science community, was able to exert a powerful influence on schools, and that few USOE/NIE projects have had a comparable effect. The record raises serious questions concerning the way in which past decision-making has occurred and may still be occurring in USOE/NIE.

3. Unless one assumes that the quality of NSF-sponsored materials is markedly superior to those developed with USOE/NIE support, and I have no basis for such an assumption, the differences in acceptance must be attributed to other factors. Two seem particularly significant:

(a) NSF projects were instituted with broad general support of leaders in the science community -- scholars, science educators, etc. -- and with the support of the major professional associations concerned with science and mathematics education who continually directed attention of constituents to the work in progress. Almost from the beginning, those groups controlling the communication network in science education (AAAS, NSTA, etc.) worked closely with NSF. Many USOE/NIE projects, on the contrary, were initiated by regional

laboratories or centers without any widespread professional awareness on the part of teachers and curriculum leaders for whom the projects were designed. Except for IGE and perhaps the Career Education Center at Ohio State University, awareness was largely limited to regional constituents. This was not true with Project English in the early Sixties where initial efforts managed to stimulate considerable professional interest, although Project English failed to achieve major impact because of inadequate follow-through. The lesson seems clear: in developing curricula in the major disciplines, NIE must enlist the support of national leaders and opinion makers.

(b) Secondly, NSF -- at least until recently -- supported funded projects with a full range of information and dissemination activities, including the publication of newsletters, regional teacher training institutes on use of the materials, and related installation services. Coupled with the information services maintained during development, such activities developed a readiness on the part of teachers to accept the new materials. If NIE determines that extensive support for a particular development project is in the national interest, it is no less mandatory that it assume responsibility for disseminating information

about the project. It does not follow, however, that direct support to schools for purchase of materials is required or that those projects which fail to achieve expectations should be publicized.

4. To the extent that NIE plans to support major projects in curriculum development, and it is difficult to see how the Institute will materially affect the quality of education in some areas if it does not, careful consideration must be given to developing a national consensus for the need. This development of consensus should involve not only scholars and educational specialists but substantial participation by classroom teachers (both in determining priorities and in monitoring developments). A particular problem with federally supported projects has been a tendency to adopt a "cult of the expert" approach to curriculum reform. Supporting imaginative, brilliant, but often exotic conceptions about schooling that are formulated by one individual may be appropriate for a private foundation but not for a federal agency with resources that inevitably will be limited. Increasingly decisions concerning the selection and use of new programs are being made by teachers rather than by administrators or supervisors. By participating in the decision-making process as well as in development, representative teachers should be

able to make significant recommendations concerning the formatting of the materials as well as the content and instructional outcomes. Since one characteristic of many innovative curriculum projects is that materials are overbuilt, containing too many components in prohibitively expensive formats, the participation of teachers should inject a salutory influence.

5. Early involvement of publishers in the development process once seemed to me to offer an intelligent way of injecting greater user-awareness into the work of federally-supported developers. Two diverse experiences with early involvement have convinced me that publishers cannot support the front-ended investment required for involvement several years prior to publication without substantial reduction in royalties in addition to other support. For example, in one particular case a publisher invested close to one million dollars in staff time, travel, and related development costs before any manuscript was received for standard editing and review. Given our inflationary economy, the cost of money, and the probability that programs do not reach a breakeven status until several years after publication, extensive early investment imposes a severe burden on achieving an acceptable return on investment. Alternative ways of making early involvement economically feasible need to be carefully explored.

6. In general, major efforts in curriculum development should be centralized but should be planned to allow for substantial variance in local application. This implies a need for encouraging the development of alternative models for achieving the same purpose. Although well supported national projects can enlist the support of leading scholars and educators, the involvement of local practitioners is essential to insure that adaptations can be utilized in a diversity of teaching conditions. One of the major problems is designing instruction which will work effectively with many different teachers without the requirement for extensive teacher training. Another imperative requirement is formatting instruction so that installation and continuing costs will be within the school's capability to support without receiving outside funds.

7. In determining priorities in curriculum development, NIE should give careful consideration to initiating broadly based studies of the actual practice and requirements of classroom teachers in schools throughout the country. Before investing hundreds of thousands of dollars in new projects, NIE must find ways of assessing present conditions, evaluating the extent of the need for the proposed undertaking, and determining whether existing programs or programs under development actually meet the identified need. More than a few curriculum developments sponsored

NIE tend to duplicate programs under development or already available. In a sense, NIE needs to undertake a kind of "market research" similar to that practiced by independent publishers as contrasted with the customary "needs assessment" often practiced in educational circles. This type of research should extend far beyond conferences involving scholars and educational specialists and probably should involve classroom observation, interviews with teachers and administrators, and meetings with publishers and independent developers of materials.

One kind of study that might precede a major curriculum effort is an extensive status survey to determine the quality of present practice, the schools achieving results (and why), the varying conditions under which learning occurs, and the perceived requirements of teachers.

8. One problem that seems to impact negatively most development projects that extend over several years is that the panel of specialists that initially identified the need and recommended approval of the project are not held accountable for their recommendations. USOE/NIE staff members selected to monitor projects tend to move on to new assignments. During the process of development and often by the time of completion, the purpose of the project and the extent to which it is achieving the intended purpose is obscured. For projects that extend over several

years, such blurring of purpose may be inevitable. One possible way of mitigating the effect would be to assign two or three of the advisers who intially recommended the project the task of monitoring developments throughout the life of the project. Another would be to contract with an outside, independent auditor likely to have a less fluid staff than NIE.

9. Evaluation of curriculum development should be broadly conceived and related to the purposes of each project. Teacher attitudes, cost effectiveness, adequacy of content coverage, usability, and appropriateness to school curricula are among considerations too often disregarded by the present NIE staff, many of whom seem wedded to a narrow "learner verification" model of evaluation which is an appropriate model only for selected projects.

10. Continued support for basic research is essential in view of the absence of such support from other agencies, although the expenditures for research need not consume a large percent of NIE funds. In addition to funding targeted research in areas of identified need, NIE should provide reasonable support for important independent studies submitted by individual researchers. For example, among the more influential studies of the last decade was the twelve-year longitudinal

study of language development conducted by Walter Loban, a project submitted independently by Loban and funded by the Cooperative Research Program.

Useful, also, to researchers and practitioners are occasional conferences which bring specialists together and evaluate the current state of research in a given area and draw implications for school practice. Where this has occurred, as in the recent LRDC Conferences on Beginning Reading, special effort should be made to disseminate recommendations not only to schools but to those in decision-making positions, such as staffs of SEA's, LEA's, and publishers and developers. Publication may not be the only or even the most effective vehicle employed for such dissemination. Some consideration should be given to special conferences -- perhaps regional meetings -- where the implications of findings are discussed.

Footnote:

1) Epiegram, 1 May 1976, p. 1.